

ABSTRACT

[00115] An improved system and method for personal identity biometric authentication using an iris acquisition device having an expanded capture volume to enable greater ease of use, overcomes the problem of eyeglass reflections to avoid false rejections, has no moving parts thereby enhancing reliability, and achieves low cost through use of a simple design and commonly available components. The invention is directed to an apparatus, system, and method for expanding the capture volume by extending the iris image capture zone in one or more axes (X, Y, and/or Z). The iris image capture device includes a cooperating pair of lens systems and illuminators wherein each individual lens system/illuminator system has a known separation and is capable of capturing an image of either or both a right eye and a left eye of a user thereby extending an apparent width of field in an X-axis. The lens systems of the iris image capture device can also be physically and/or optically offset from one another resulting in an extended apparent depth of field in a Z-axis. In addition, each individual lens system/illuminator system preferably has a minimum angular separation that ensures that no reflections due to eyeglasses fall onto the iris image area.

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